

Amendment and Response

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Serial No.: 09/520,032

Confirmation No.: 9385

Filed: 6 March 2000

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Remarks

The Office Action mailed 20 May 2004 has been received and reviewed. Claim 42 has been amended leaving claims 17, 19-21, 25-28, 33-54, 94-96, and 98-111 pending. Reconsideration and withdrawal of the rejections are respectfully requested.

Allowed Subject Matter

Applicants thank the Examiner for notification to the effect that claim 19 has been allowed.

Claim Objections

Applicants have amended claim 42 to overcome the Examiner's objection relating to the typographical error in the claim. Applicants submit that the amendment does not narrow the scope of the claim. Entry and consideration of the amendment is respectfully requested.

Claims 25-28 & 94-96

Applicants note that claims 25-28 and 94-96 are listed in the Office Action as rejected only under obviousness-type double patenting, although the claims do appear to be discussed in the comments of the rejections under 35 U.S.C. § 103.

To expedite prosecution, Applicants respectfully request that the Examiner consider the arguments presented below with respect to the rejections under § 103 if claims 25-28 and 94-96 should have been indicated as rejected under § 103, but were inadvertently omitted from the listing of rejected claims with respect to each § 103 rejection.

Obviousness-Type Double Patenting Rejection

Claims 17, 20, 21, 25-28, 33-54, 94-96, and 98-111 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23, 24, 30-32, 89, 90, 92, 93, and 133-148 of copending Application No. 09/955,604.

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Upon an indication of otherwise allowable subject matter and in the event this rejection is maintained, Applicants will provide an appropriate response.

The 35 U.S.C. §103 Rejection

The Examiner rejected claims 17, 20, 21, 33-54, and 98-111 under 35 U.S.C. § 103(a) as being unpatentable over Bryant (U.S. Patent No. 2,108,645) in view of Rochlis (U.S. Patent No. 3,312,583). Applicants respectfully traverse this rejection.

The assertion that Bryant teaches "each of the three-dimensional cavities has a boundary defined by at least four planar surfaces wherein adjacent planar surfaces of on three-dimensional cavity meet at an edge to define an angle of intersection therebetween" (Office Action, p. 3) is not supported by the reference itself. Support for this assertion is presumably found in Figures 1 and 1A. A review of those figures and their associated description, however, finds that no such features are depicted or described in Bryant. As a result, any assertion that Bryant teaches a coating roll with pyramidal shapes as recited in claim 17 is not supported by the reference itself.

Also, claim 28 is cited after a discussion with respect to pluralities of cavities (Office Action, p. 3), but Applicants note that claim 28 does not recite any first, second, etc. pluralities of cavities. As a result, Applicants assume that inclusion of claim 28 was a typographical error.

Because of the many deficiencies of Bryant, Rochlis was cited to support the rejection. More specifically, the teachings of Figures 19, 21, and 22 and the portions of the specification of Rochlis were cited in support of many different assertions made in connection with the rejection. Applicants respectfully traverse those assertions, noting that they are not supported by the cited portions of Rochlis.

Many of the assertions relate to the use of cavities with different geometric shapes. Applicants respectfully submit, however, that the assertions are not supported by the cited portions of Rochlis for a number of reasons.

Figures 21 and 22 of Rochlis disclose a tool with various geometrically shaped cavities. That tool, however, is in the form of a flat sheet, not a roll. The Office Action relies on Col. 13,

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lines 29-35 to support the assertion that the variations in geometric shapes as seen in Figures 21 & 22 could be used in a roll. The cited portion (which is provided below) of Rochlis, however, actually teaches away from the use of differently shaped cavities in a roll.

While it is unlikely that the specifically different type of plate holes schematically shown in FIGS. 21 and 22 will be employed in any given mold, nevertheless, these views show the wide variation of molding cavity outlines which may be built into a laminated mold in which the cavity formations extend from side-to-side of the constituent (*sic*) laminae rather than from edges thereof.

Rochlis, Col. 13, lines 29-35.

In other words, Rochlis teaches that the variations depicted in Figures 21 and 22 are not adaptable for use in rolls.

As a result, the assertion that Rochlis provides support for geometric shape variations in rolls is not supported by the reference and cannot form the basis for a *prima facie* case of obviousness with respect to claims 20, 21, 33-54, and 98-111 (all of which recite roll constructions).

In addition, the assertions made with respect to the pyramidal shaped cavities recited in claim 17 are also not supported by Rochlis. Among the sets of cavity shapes disclosed by Rochlis, no variations are provided within a given set, i.e., all of the circular cavities are the same, etc. As a result, the assertions made with respect to the rejection of claim 17 also cannot support a *prima facie* case of obviousness with respect to claim 17.

For at least the above reasons, Applicants respectfully submit that the rejection of claims 17, 20, 21, 33-54, and 98-111 over Bryant in view of Rochlis does not meet the requirements for a *prima facie* case of obviousness. Reconsideration and withdrawal of the rejection are, therefore, respectfully requested.

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The Examiner rejected claims 17, 20, 21, 33-54, and 98-111 under 35 U.S.C. § 103(a) as being unpatentable over Augustin (U.S. Patent No. 4,539,017) in view of Rochlis (U.S. Patent No. 3,312,583). Applicants respectfully traverse this rejection.

It is asserted, in support of this rejection, that Augustin teaches that "the production tool is a coating roll (col. 6, lines 39-54)." Applicants respectfully disagree. For convenience, the cited portion of Augustin is presented below:

In the simplest case, the planar negative mold 14 comprises an elastomer molding material, for example silicone rubber. To produce a grinding element having islands 11b according to the invention, mold nests 14b corresponding to the desired geometrical shape of islands 11b are provided in the planar mold 14. The mold nests 14b are filled with a highly viscous and/or thixotropic mixture of abrasive grit and binder or such a mixture is spread thereinto. The mold 14 is then rolled into a circle and placed into the centrifuga (sic) ring mold 23 the plan surface of mold 14 being located against the end member 26, which doesn't have ribs in this case, as islands 11b are already formed by mold 14. An elastomer is next poured in while the mold is under rotation or alternatively foamed in and thereafter hardened, to form supporting layer 12.

Augustin, Col. 6, lines 39-54 (emphasis added).

Review of the cited portion of Augustin shows that it teaches filling mold nests 14b in a planar negative mold 14 with "abrasive grit and binder" followed by rolling the mold 14 "into a circle" and placing it within a ring mold 23. An elastomer is then poured into the mold under rotation to make a supporting layer 12 of the grinding element. The cited portion of Augustin does not, however, describe any roll that is used as a coating tool to produce an abrasive article. As a result, the assertion that Augustin teaches a "coating roll" is not supported by the reference itself.

Rochlis was cited in combination with Augustin to support this rejection. A *prima facie* case of obviousness requires, among other things, identification of some suggestion or motivation to combine the cited references to reach the claimed invention. This rejection, however, does not identify any such suggestion or motivation. The only asserted suggestion or motivation is directed to the combination of Bryant in view of Rochlis. For that reason alone, the

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rejection of claims 17, 20, 21, 33-54, and 98-111 over Augustin in view of Rochlis cannot be sustained.

However, to expedite prosecution, Applicants submit the following observations on the assertions made in support of this rejection based on Rochlis. The teachings of Figures 19, 21 and 22 and the portions of the specification of Rochlis were cited in support of many different assertions made in connection with the rejection. Applicants respectfully traverse those assertions, noting that they are not supported by the cited portions of Rochlis.

Many of the assertions relate to the use of cavities with different geometric shapes. Applicants respectfully submit, however, that the assertions are not supported by the cited portions of Rochlis for a number of reasons.

Figures 21 and 22 of Rochlis disclose a tool with various geometrically shaped cavities. That tool, however, is in the form of a flat sheet, not a roll. The Office Action relies on Col. 13, lines 29-35 to support the assertion that the variations in geometric shapes as seen in Figures 21 & 22 could be used in a roll. The cited portion (which is provided below) of Rochlis, however, actually teaches away from the use of differently shaped cavities in a roll.

While it is unlikely that the specifically different type of plate holes schematically shown in FIGS. 21 and 22 will be employed in any given mold, nevertheless, these views show the wide variation of molding cavity outlines which may be built into a laminated mold in which the cavity formations extend from side-to-side of the constituent (*sic*) laminae rather than from edges thereof.

Rochlis, Col. 13, lines 29-35.

In other words, Rochlis teaches that the variations depicted in Figures 21 and 22 are not adaptable for use in rolls.

As a result, the assertion that Rochlis provides support for geometric shape variations in rolls is not supported by the reference and cannot form the basis for a *prima facie* case of obviousness with respect to claims 20, 21, 33-54, and 98-111 (all of which recite roll constructions).

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In addition, the assertions made with respect to the pyramidal shaped cavities recited in claim 17 are also not supported by Rochlis. Among the sets of cavity shapes disclosed by Rochlis, no variations are provided within a given set, i.e., all of the circular cavities are the same, etc. As a result, the assertions made with respect to the rejection of claim 17 on the basis of Figures 20 and 21 also cannot support a *prima facie* case of obviousness with respect to claim 17.

For at least the above reasons, Applicants respectfully submit that the rejection of claims 17, 20, 21, 33-54, and 98-111 over Augustin in view of Rochlis does not meet the requirements for a *prima facie* case of obviousness. Reconsideration and withdrawal of the rejection are, therefore, respectfully requested.

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Summary

It is respectfully submitted that the pending claims 17, 19-21, 25-28, 33-54, 94-96, and 98-111 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
HOOPMAN et al.

By
Mueeting, Raasch & Gebhardt, P.A.
P.O. Box 581415
Minneapolis, MN 55458-1415
Phone: (612) 305-1220
Facsimile: (612) 305-1228

19 AUGUST 2004
Date

By: KWR
Kevin W. Raasch
Reg. No. 35,651
Direct Dial (612)305-1217

CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19th day of August, 2004, at 2:59 p.m. (Central Time).

By: Rachel Gaylin-Gebhardt
Name: Rachel Gaylin-Gebhardt